

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for manufacturing molten iron, comprising:

producing an iron-containing mixture by drying and mixing particles of iron-containing ores and additives;

passing the iron-containing mixture through first to third successively-connected fluidized beds in the presence of reducing gas so that the mixture is reduced and calcined and thereby converted into a reduced material;

forming a coal packed bed, which is a heat source in which the reduced material has been melted;

charging the reduced material to the coal packed bed and supplying oxygen to the coal packed bed to manufacture iron; and

supplying reduced gas exhausted from the coal packed bed to the fluidized bed,

wherein converting the mixture into the reduced material comprises:

(a) supplying the reducing gas to the third fluidized bed;

(b) supplying reducing gas which passed through the third fluidized bed to the second fluidized bed;

(c) supplying reducing gas which passed through the second fluidized bed to the first fluidized bed;

(d) preheating the mixture in the first fluidized bed;

(e) pre-reducing the preheated mixture in the second fluidized bed; and,

(f) finally reducing the pre-reduced mixture in the third fluidized bed and converting the mixture into the reduced material;

wherein each fluidized bed comprises a dispersing plate; and,

wherein the reducing gas is heated by injected oxygen gas is directly injected into the first and second fluidized bed and is partially combusted in (d) or (e), respectively, (a) to (c), and another oxygen gas is directly injected to the heated reducing gas that passes through the dispersing plate to be partially and combusted and further heated in (a) to (c), respectively (d) to (f).

2. (Previously Presented) The method of claim 1, wherein in converting the iron-containing mixture to a reduced material, water is supplied separately from oxygen supply combustion process and is mixed with the oxygen.

3. (Previously Presented) The method of claim 2, wherein the water is one of process water and steam.

4. (Previously Presented) The method of claim 2, wherein the water is supplied at a rate of 300~500 Nm³/hr.

5. (Previously Presented) The method of claim 1, wherein the oxygen is supplied and combusted in the case where an internal temperature of a fluidized-bed is 650 degrees Centigrade or higher.

6.-16. (Canceled)